

USE LIGHT "C" GRAIN STOCK THROUGHOUT EXCEPT FOR FUSELAGE.

**CAREFUL!**  
DON'T MAKE TWO RIGHT-HAND WINGS!

**STAB**

1/32" Balsa SHEET



**WING**

1/32" Balsa SHEET (C" GRAIN)

WING MUST BE CURVED TO AIRFOIL SHAPE WITH FORMERS

CURVE TIPS AND HOLD IN CURVE UNTIL THIS JOINT DRIES

**WING TIP**

**RUDDER**

1/32" Balsa SHEET

POWER: 1 LOOP 5/32" PIRELLI AS LONG AS FUSELAGE

GLUE TO UNDERSIDE OF WING

DO NOT DOPE MODEL!

FORMER 1/32" Balsa SHEET

FLY IN LEFT-HAND CIRCLES BY BENDING REAR OF STAB UP AND REAR OF RUDDER LEFT

IF MODEL DIVES IN TO LEFT, WASH IN (BEND DOWN REAR EDGE OF) LEFT WING.

PUT YOUR PHONE NUMBER ON IT!

**POLY-WOG**

BY BILL WARNER

— 1967 —

"SLEEK STREEK" PROP ASSEMBLY (OR EQUIVALENT 5 1/2" PLASTIC PROP)

DROP OF OIL HERE

1/2"

5/16"

**DIHEDRAL SKETCH**  
NOT TO SCALE!

BALANCE MODEL AT THIS POINT

WING

1/32" Balsa SHEET (EACH SIDE)

**FUSELAGE** 1/8" HARD Balsa

MAKE FUSELAGE IN ONE PIECE

OPTIONAL: SAND WINGS, STAB, TO AIRFOIL SHAPE

**RUDDER**

STAB

BENT PIN REAR MOTOR HOOK

CUT AWAY PART OF PROP ASSY. GLUE AND THREAD WRAP FOR ADDED CLEARANCE



Jimmy Warner (age 9) has that special launching form for his Poly-Wog.

# Poly-Wog

BY BILL WARNER

Bill Warner has been amazing the big guys and pleasing the kids for years with this fun-type fighter. It's a fugitive from the dime store, using a "Sleek Streak" plastic prop assembly, but it shoots those ready-builts right out of the sky at school-yard contests.

## MATERIAL LIST

1 - 1/32" x 3" x 22" light balsa  
 1 - 1/8" x 3/8" x 16" hard balsa  
 1 North Pacific 5/32" dia. prop  
 30" of 5/32" Pirelli rubber

rowed it back for the Poly-Wog. Although the assembly can be used "as-is", I prefer to saw away the under part of the white plastic to give more clearance which prevents the rubber motor from getting "knot-bound" when fully wound. Glue it on, wrap with thread, and rub on a glue skin for strength. You may have to slip a bit of scrap balsa in to get a tight fit. Bend a pin for the rear motor hook and glue in position shown. Wrap with thread if you wish.

**FINAL ASSEMBLY:** Glue wing to pylon. Use a couple of coats thinly-applied, rather than one big slop of glue. Dries much faster and is neater. Glue stab to underside of fuselage and rudder on top. Line up rudder with the fuselage so you don't get unwanted turn.

**POWER:** The Poly-Wog will fly on about anything: dime store rubber bands, to contest rubber. A loop of 5/32" Pirelli as long as the fuselage gives the hottest performance, but take care not to wind it up too much on test flights, as it will fly faster and crash harder. Rub in a little liquid soap or glycerine or (Sig) rubber lube and you are in business. If your knot comes out, rub a little dirt on the motor ends so it will hold better. (windup on page 46)

**ABOUT** seven years ago, I started developing this model. It had to have a lightning fast up-out-of-sight climb, be simple enough so any kid of junior-high age, could build it, and cost less than anything else going. Many planes of this type have been built and flown by my junior high club, the Sepulveda Balsa Butchers. Flights of better than a minute are the rule, and out-of-sight flights are common enough to recommend putting your name and address on the plane. One Poly-Wog entered in an unlimited rubber event flew out of sight at 3:25 minutes on its first flight.

**CONSTRUCTION:** Glue the plan to a piece of heavy paper or thin cardboard. Carefully cut out templates for the wing, stab, etc. Do a good job on the wing, as there are slight curves where the wing parts fit together which must be there if your wing is to hold its camber (curved top surface).

**WING:** Draw around templates on the 1/32" sheet with a ballpoint pen and cut out. Sand in an airfoil shape if you wish, but the plane will fly pretty well without it. Glue wing formers beneath right and left wing panels. Hint: glue it, take it apart, allowing the glue to soak in and dry, glue it again, wait until the glue is tacky and then hold

until set. If you wet the top surface of the wing panel with your tongue, it will curve all by itself! Glue on the wing tips, join wing halves at center and measure them so they dry at the positions shown in the dihedral sketch. When dry, rub in an extra "skin" of glue at each joint. Congratulations, the hardest part is now over!

**TAIL:** Cut out stab and rudder from 1/32" sheet and sand with fine sandpaper, especially at the rear. A thin trailing edge is a good idea as it lets you bend it up or down without splitting.

**FUSELAGE:** Don't worry, the fuselage is ONE piece. We just broke it in half on the plan so it would fit the page! Make sure it is straight and hard. Notice how the stab is glued on the bottom at a negative angle. Cut out the pylon sides (make two) and glue them to the sides of the fuselage as shown on the plan. Make absolutely sure the grain goes up-and-down as shown. This forms a little curved cradle for the wing to fit on.

**PROP ASSEMBLY:** A standard North Pacific "Sleek Streak" was purchased and presented to my son to destroy (after oiling the prop shaft to prevent wear). When all that was left of the plane was the prop assembly, I bor-

